REMARKS

The Examiner provides a number of objections and rejections. We list them here in the order in which they are addressed.

I.   The listing of references in the specification is objected to as an improper information disclosure statement.

II.   The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code.

III.   Claims 1-18 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

IV.   Claims 1-18 are rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

V.   Claims 1-18 are rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Lilburn *et al.*

VI.   Claims 1-18 are rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Cole *et al.*

VII.   Claims 1-18 are rejected under 35 U.S.C. §102(a) as allegedly being anticipated by Cornell *et al.*

VIII.   Claims 1-18 are rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Cyrus *et al.*

IX.   Claims 1-18 are rejected under 35 U.S.C. §102(a) and (e) as allegedly being anticipated by Remsen *et al.*

Applicants respond as follows:

I.   The Information Disclosure Statement will be submitted separately.

The Applicants will shortly submit a listing of references originally provided on page 28 of the specification in a separate paper in accordance with 37 CFR 1.98(b) and MPEP §609.04(a).

II.   The disclosure no longer contains an embedded hyperlink

The Applicants have amended the specification in order to delete the embedded hyperlinks at pages 19 and 20 of the specification. Applicant and emphasize that such information is intended to be merely illustrative of an embodiment(s) of the present invention.

III.   Claims 1-18 particularly point out and distinctly claim the subject matter that the applicant regards as the invention.

The Examiner has rejected Claims 1-18 under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The Applicants disagree. Nonetheless, without acquiescing but to further prosecution, and hereby expressly reserving the right to prosecute the original (or similar) claims in the future, the Applicants have amended independent Claims 1 and 18.

IV.   Claims 1-18 are directed to statutory subject matter.

The Examiner has rejected Claims 1-18 under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter for failing to provide either a transformation of matter, or a concrete, tangible and useful result. The Applicants disagree, and respectfully contend that the claims as written do not merely "manipulate provided data

and store it" as alleged in the present office action. Rather, the claims clearly recite a transformation by way of a machine, and therefore satisfy the criteria of 35 U.S.C. §101.[1]

V. Claims 1-18 are not anticipated by Lilburn *et al.*

The Examiner has rejected Claims 1-18 under 35 U.S.C. §102(a) as allegedly being anticipated by Lilburn *et al.* As evidenced by the enclosed Declaration of Dr. George Garrity, the co-author of this reference (Timothy G. Lilburn) merely provided technical expertise but did not contribute to the concept or experimental design of the work described therein. Since Timothy G. Lilburn is not an inventor of the present technology, the Applicants contend that this reference is not available as prior art under 35 U.S.C §102(a) and should therefore be withdrawn.

VI. Claims 1-18 are not anticipated by Cole *et al.*

The Examiner has rejected Claims 1-18 under 35 U.S.C. §102(a) as allegedly being anticipated by Cole *et al.* As evidenced by the enclosed Declaration of Dr. George Garrity, the co-authors of this reference merely provided technical expertise but did not contribute to the concept or experimental design of the work described therein. Since none of the co-authors of this reference are inventors of the present technology, the Applicants contend that this reference is not available as prior art under 35 U.S.C §102(a) and should therefore be withdrawn.

VII. Claims 1-18 are not anticipated by Cornell *et al.*

The Examiner has rejected Claims 1-18 under 35 U.S.C. §102(a) as allegedly being anticipated by Cornell *et al.* In support of this rejection the Examiner states that

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[1] See In Re Bilski, United States Court of Appeals for the Federal Circuit (10-30-2008) "Thus, the proper inquiry under § 101 is not whether the process claim recites sufficient "physical steps," but rather whether the claim meets the machine-or-transformation test. As a result, even a claim that recites "physical steps" but neither recites a particular machine or apparatus, nor transforms any article into a different state or thing, is not drawn to patent-eligible subject matter. Conversely, a claim that purportedly lacks any "physical steps" but is still tied to a machine or achieves an eligible transformation passes muster under § 101."

the system disclosed by Cornell *et al.* "...creates an order from data objects provided by a user. Each data object/name provided by the user is given a unique addressable identifier (object) which is stored and manipulated to create ontologies, and taxonomies." Office Action p. 6, lines 13-15.

The Applicants cannot agree with this assessment of Cornell *et al.* The GIMS system disclosed by this reference is a tool for biologists to "analyse microarray data" (Cornell *et al.* p. 1295, column 2). The data analysis performed by the GIMS system integrates "different functional datasets" (Cornell *et al.* p. 1291, column 2) including "gene ontology data" (Cornell *et al.* p. 1292, column 2). There is, however, no indication within this reference that the GIMS system stores and/or manipulates data to "create ontologies, and taxonomies" as stated by the Examiner. In fact, this reference actually recognizes the very problem that the instant invention addresses without providing any sort of taxonomic or ontologic solution:

> "Another, more frequent, problem is the inconsistent use of protein names in different data sources. Each yeast gene, and the protein it encodes, has a unique identifier which gives its position relative to other genes on a given chromosome. However, in many cases, authors have preferred to use one of the gene names derived from genetic analyses. In order to accommodate this, a glossary of gene names has been created for each protein." See Cornell *et al.* p. 1293, column 2.

For at least the reasons provided above, the Applicants respectfully assert that the GIMS system disclosed by this reference merely supports "efficient and effective data analysis" (Cornell *et al.* p. 1304, column 2) but does not provide taxonomic or nomenclatural services, and does nothing to resolve and/or identify ambiguities between names or entities. The Applicants, therefore, contend that the present rejection of Claims 1-18 should be withdrawn.

VIII. Claims 1-18 are not anticipated by Cyrus *et al.*

The Examiner has rejected Claims 1-18 under 35 U.S.C. §102(e) as allegedly being anticipated by Cyrus *et al.* In support of this rejection the Examiner states that Cyrus *et al.* "provide an object oriented database system for managing bioinformatic data." Office Action p. 6, line 21. Having reviewed this reference, the Applicants are

unable to find any indication that the "Information system for biological and life sciences research" disclosed by this reference provides or performs <u>any</u> taxonomic and/or nomenclatural service(s). Specifically, the information system disclosed by this reference does not identify and/or resolve any sort of ambiguity between names or entities. The text of this reference merely describes numerous situations/applications whereby a researcher can access information that "may be useful" to an experiment they are performing. The Applicants, therefore, contend that the present rejection of Claims 1-18 should be withdrawn

IX.   Claims 1-18 are not anticipated by Remsen *et al.*

The Examiner has rejected Claims 1-18 under 35 U.S.C. §102(a) and (e) as allegedly being anticipated by Remsen *et al.* In support of this rejection the Examiner states that Remsen *et al.* "...provides a universal organism name resolution and classification system. This system is an object oriented database for resolving names and classification of organisms." Office Action, p. 6 lines 29-30.

Having reviewed this reference, the Applicants cannot agree that Remsen *et al.* discloses the method (and system) recited in Claims 1-18. This reference merely discloses a database of synonyms - essentially a thesaurus - that provides an end user with a list of additional names that they must then substitute in subsequent queries, without ANY guidance as to which term is appropriate in a given temporal context. This is unlike either the "persistent, uniquely identified, addressable information object" (claim 1) or the "persistent identifiers" (claim 18) of the present invention, by which representations of thought, opinion, and/or data can be created AND manipulated.[2]

The Applicants were unable to identify ANY teaching within Remsen *et al.* related to creating/assigning a "persistent, uniquely identified, addressable information object" (Claim 1) or "persistent identifier" (Claim 18). Therefore, this reference does not anticipate each and every element of Claims 1-18 and the Applicants respectfully request that the rejection be withdrawn.
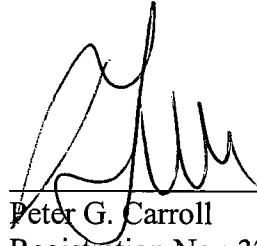
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[2] See (for example), Specification page 15, lines 16-22 and page 18, line 30 to page 19, line 4.

CONCLUSION

Based on the arguments provided above, Applicants believe that Claims 1-24 are in condition for allowance. Should the Examiner believe a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned at 781.828.9870.

Respectfully submitted,

Dated: _____ December 16, 2008 ___

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